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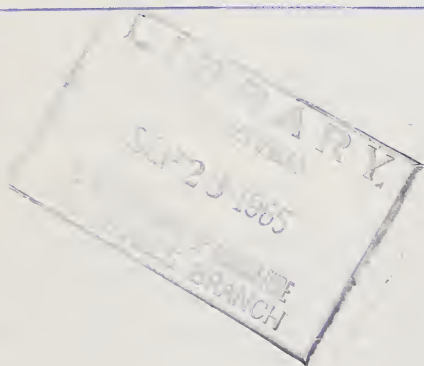
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ERADICATING

SCRAPIE OF SHEEP



Eradicating SCRAPIE OF SHEEP

Scrapie is an infectious, chronic, degenerative disease of sheep. It is primarily a problem associated with purebred sheep because breeding stock are held longer than grade stock. Some breeds or bloodlines in a breed are more susceptible than others. Goats are susceptible to scrapie, but no natural infections have been found in this country. Research workers have transmitted the disease to goats, to other sheep, to mice, hamsters, and rats.

Most scientists working with the disease believe that scrapie is caused by a filterable virus. It affects the central nervous system of the animal. The animal's rubbing to relieve the sensation of intense itching caused by the disease gave rise to the term "scrapie."

Once affected with scrapie, the animals rarely recover. There are no known vaccines to protect animals from the disease nor medications for its cure. The long incubation period—1½ to 3½ years or longer—complicates eradication efforts since no tests have yet been devised to detect the presence of the virus before symptoms occur.

Following its discovery in the U.S. in 1947, scrapie has been found in 149 flocks in 29 States—in 233 sheep of the Suffolk breed, in 12 Cheviots and in 1 Hampshire. The number of flocks under surveillance reached a high of 2,035 in 1956 but has since declined to about one-third this number under surveillance.

In Great Britain where scrapie has been known for several hundred years, the number of scrapie cases may reach 20,000 a year. The disease has also occurred in France, Germany, Hungary, Poland, Norway, India, Australia, New Zealand, Iceland, and Canada. Canada maintains an eradication program similar to ours.

The cooperative State-Federal eradication program was started in 1952 to prevent scrapie from becoming entrenched in this country and to stop its spread. The program is based on finding the disease, quarantining infected flocks, and the slaughter of affected and exposed animals. No other effective means are available for combating the disease. To protect the sheep and goat industry, about 80,000 sheep have been slaughtered since the program began.



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Sheep in advanced stage of scrapie shows loss of wool, weakness, dull eyes, and drooping ears.

Symptoms

Scrapie develops slowly. Exposed sheep may carry the virus 18 to 42 months before symptoms appear. In the U.S., most infected animals show signs of the disease between the ages of 2½ and 4 years. Generally, such animals live 3 weeks to 6 months before death occurs.

In the early stages of scrapie, the animal is highly nervous, develops slight muscular tremors, and the wool lacks luster. Itching develops on the rump, back, flanks, or shoulders, and the animal may bite the skin and pull out wool with its teeth. Loss of wool may expose the skin which may bleed from the rubbing and scratching on convenient objects. Rubbing the sheep over the loin or rump causes the definite scratch reflex and the animal nibbles, licks its lips and grinds its teeth. Occasionally the animal may appear to improve, but this is temporary.

As the disease advances, the animal becomes more nervous, trembles frequently, spends more time rubbing. It may dribble feces and urine when excited, but show no evidence of diarrhea. The sheep gradually loses weight while eating normally. It becomes weak and dull; eyes stare vacantly and ears droop.

Progressively, the sheep moves with an uncoordinated, staggering gait, with apparent weakness of the hindlegs. The animal may go into frequent convulsions or comas before death.

How Scrapie Spreads

Scrapie spreads when healthy animals are exposed by affected animals or by premises contaminated with the virus. An animal may or may not contract the disease upon exposure depending on whether the animal has an inherited susceptibility to the disease.



Other Diseases

Scrapie may be confused with parasitic diseases and other diseases of sheep. Mites (scabies), ticks, and lice cause sheep to scratch, to become unthrifty and lose patches of wool. Once the animal is treated for external parasites, however, rubbing and scratching should cease.

Other diseases that may be confused with scrapie include listeriosis, pregnancy disease, pseudorabies, and rabies. Feeding on certain poisonous plants may cause loss of wool and other signs of disease.

Rubbing against convenient objects may be a sign of scrapie.

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Rubbing the loin or rump of affected sheep causes it to scratch, grind its teeth, and lick its lips.

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Abnormal amount of scratching should alert owners to possible scrapie infection.

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THE ERADICATION PROGRAM

Prompt reporting of sheep suspected of having scrapie is important to the eventual elimination of this disease from the U.S. Animals suspected of having the disease should not be destroyed but they should be isolated immediately and the condition reported to local, State, or Federal veterinarians.

Diagnosing the Disease

State and Federal veterinarians examine the flock. The affected sheep may be moved to a laboratory for observation. Tissues of the affected sheep are sent to a State or Federal laboratory for examination. Diagnosis of the disease is made by considering the information from the laboratory along with symptoms of the disease in the animals.

Quarantines

If scrapie is diagnosed in an animal, the entire flock is placed under quarantine or other suitable restrictions. The restrictions are maintained until the affected animals are properly disposed of under State and Federal supervision. A record of all sheep and goats is prepared to meet requirements for indemnity payments and for other purposes. Animals can be moved in or out of quarantined flocks only by permit. Animals moved from such flocks must go direct to slaughter.

Infected Flocks

All affected animals and their "bloodlines" must be slaughtered regardless of whether they have been moved into other flocks in other areas or States. A bloodline includes the affected animal, its dam and sire, all its offspring, its brothers, sisters, and half brothers and half sisters. The Federal government and many of the States provide for indemnity payments for slaughtered animals.

Officials may determine that the entire flock should be destroyed. In other cases, the sheep producer may be permitted a choice in the disposition of his flock under certain circumstances:

(1) After the affected animal and its bloodline have been slaughtered, the producer may retain the remainder of the flock if he agrees to a quarantine of the flock; permit inspection of his animals each month for 24 months and every 6 months thereafter for 18 months; maintain health and other records on the animals; report illnesses and deaths promptly; move animals in or out of the flock only by permit and only to slaughter in the latter case; and accept indemnity payments according to State and Federal regulations.

(2) Sometimes it may be necessary to slaughter the entire flock; in other cases, only part of the flock may require slaughtering. In the latter instance, the producer may, under certain circumstances, arrange to have his entire flock slaughtered if he agrees to accept indemnity payments according to State and Federal regulations.

Source Flocks

Source flocks are those that are determined to be spreading scrapie but in which the disease has not been confirmed. The basis for determining a source flock is as follows: (1) An apparently healthy animal was moved from the flock and developed scrapie within 18 months of the moving date; or (2) two or more apparently healthy animals were moved from the flock and developed scrapie more than 18 months after the moving date. Source flocks are treated the same as infected flocks, and indemnity eligibility would apply. The same quarantine restrictions for infected flocks apply.

Intermediate Source Flocks

Intermediate source flocks are those through which affected animals have passed. Usually such flocks are treated the same as source flocks, and eligibility for indemnity payments would apply to slaughtered animals. The 42-month inspection period must be observed.

Indemnities

Eligibility for indemnity payments for animals slaughtered and the appraisal of animal values are defined in the Federal and State regulations. Only those animals designated for slaughter by officials are eligible for indemnity payments. All purebred animals must have valid registration certificates and be identifiable through ear tags or tattoos. Grade animals must also be identified individually.

Disinfection of Premises

Determination will be made whether cleaning and disinfecting are necessary of vehicles, equipment, or premises. Indemnities will not be paid until cleaning and disinfecting is completed.

FURTHER INFORMATION

Details regarding the regulations of scrapie eradication can be obtained from Federal and State veterinarians. This publication is intended only as a general statement about the program and is not intended to fully cover all details of scrapie eradication procedures.

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